

According to a detailed aspect of the invention, each of the pivot members 46 and 56 is of a unique construction permitting easy assembly of the links 40 and 41 to the brackets 31 and 32, respectively. Herein, each pivot member is in the form of a bushing made of hard anti-
friction plastic and having a central hub 80 (FIG. 9) and a pair of radially projecting and axially spaced flanges 81 and 82. The extreme upper ends of the slots 45 and 55 are enlarged as indicated at 83 and 84, respectively, in FIG. 2 and enable the bushings 46, 56 to be inserted into the slots with the flanges 81 and 82 located on opposite faces of the respective brackets.

Formed through the hub 80 of each bushing 46, 56 is a hole 85 of rectangular cross-section for receiving a similarly shaped connector 86 integral with the appropriate end of the associated link 40, 41. Each connector is generally S-shaped and includes a first leg 87 at the extreme free end of the link, a bridge 88 extending perpendicular to the leg 87, and another leg 89 extending from the bridge 88 in a direction opposite of the leg 87. By turning the link as shown in FIG. 9 and moving the link endwise, the leg 87 may be inserted through the hole 85. Thereafter, the link is turned 90 degrees to the position shown in FIG. 8. This positions the legs 87 and 89 on opposite sides of the bushing and retains the link in place.

Means are provided for locking the links 40, 41 against turning relative to the bushings 46, 56, respectively. Herein, these means comprise two fingers 93 (FIG. 11) molded integrally with the inboard flange 81 of the bushing and straddling the rectangular hole 85. Each leg 89 is formed with two notches 94. When the link is assembled with the bushing, the leg 89 lies between the fingers 93 while the fingers project into the notches 94. As a result, the link is securely held against rotation relative to the bushing.

We claim:

1. A hinge for mounting a closure member for swinging between open and closed positions on a fixed member, said hinge comprising a closure bracket and a fixed bracket adapted to be attached to said closure member and said fixed member, respectively, a first link having one end portion connected pivotably to said fixed bracket to swing about a predetermined first axis which is fixed in space, first means connecting the opposite end portion of said first link slidably and pivotably to said closure bracket, a second link having a first end portion connected pivotably to said closure bracket to turn about a predetermined second axis relative to said closure bracket, second means connecting the opposite end portion of said second link slidably and pivotably to said fixed bracket, third means located between the end portions of said links and pivotably interconnecting said links to turn relative to one another about a third predetermined axis, said first means comprising a first slot formed in said closure bracket and slidably receiving a pivot on said first link, said first slot having a portion curved about a point which, in the closed position of said closure member, is located between said third axis and said opposite end portions of said links and lies in a plane disposed substantially between the interface of said closure member and said fixed member, said second means comprising a second slot formed in said fixed bracket and slidably receiving a pivot on said second link, said second slot being substantially straight and extending substantially parallel to a line which extends between said second axis and said third axis when said closure member is in said closed position.

2. A hinge as defined in claim 1 further including a contractile spring stretched between said fixed bracket and said first link and acting to urge said closure member from said open position toward said closed position.

3. A hinge as defined in claim 1 in which each of said pivots includes a bushing mounted slidably and rotatably in the respective slot and made of antifriction material, each bushing having an axially extending hole formed therethrough, each pivot further including a connector formed integrally with the end of the respective link, each of said connectors being generally S-shaped and having first and second legs lying against opposite faces of the bushing, each of said connectors also having a bridge formed integrally with said legs and extending through the hole in said bushing.

4. A hinge as defined in claim 3 further including means formed integrally with one of the faces of each bushing and engaging the adjacent leg of the associated connector to prevent the connector from turning relative to the bushing.

5. A hinge as defined in claim 4 in which the hole of each bushing and the bridge of each connector are of a non-circular cross-section in order to restrict rotation of the bridge within the hole.

6. A hinge for mounting a closure member on a fixed member to swing downwardly and outwardly relative to the fixed member from an upright closed position to an open position, said hinge comprising a closure bracket and a fixed bracket adapted to be attached to said closure member and said fixed member, respectively, a first elongated link having a lower end portion connected pivotably to the lower end portion of said fixed bracket to swing about a first horizontal axis which is fixed in space, first means connecting the upper end portion of said first link to slide upwardly and downwardly relative to said closure bracket and to turn relative to the closure bracket about a second generally horizontal axis, a second link having a lower end portion connected pivotably to said closure bracket to turn about a third generally horizontal axis relative to said closure bracket, second means connecting the upper end portion of said second link to slide upwardly and downwardly relative to said fixed bracket and to turn relative to said fixed bracket about a fourth generally horizontal axis, third means located between the upper and lower end portions of said links and pivotably interconnecting said links to turn relative to one another about a fifth generally horizontal axis, said first means comprising a first slot formed in said closure bracket and slidably receiving a pivot on the upper end portion of said first link, said first slot having a portion curved about a point which, in the closed position of said closure member, is disposed at the intersection of (a) an upright plane located substantially between the interface of said closure member and said fixed member, and (b) a horizontal plane located between said fifth axis and said second and fourth axes, said second means comprising a second slot formed in said fixed bracket and slidably receiving a pivot on the upper end portion of said second link, said second slot being substantially straight, being vertically inclined so as to slope outwardly upon progressing downwardly and extending substantially parallel to a line which extends between said third and fifth axes when said closure member is in said closed position.

7. A hinge as defined in claim 6 in which the radius of the curved portion of said first slot is approximately